AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1.   (Currently Amended) A method for performing a parking assist control for automatically guiding a vehicle to a target parking position, comprising ~~the steps of~~:

calculating a <u>first</u> change of a vehicle direction based on <u>output of a speed sensor</u> ~~a traveling distance of the vehicle~~ and a steering angle obtained by a steering angle sensor;

calculating ~~the~~ <u>a second</u> change of the vehicle direction based on a yaw rate obtained by a yaw rate sensor;

<u>comparing the first change of the vehicle direction and the second change of the vehicle direction;</u> and

determining whether or not the parking assist control is required to be stopped based on a result of a comparison between the <u>first and second</u> calculated changes of the vehicle direction.

2.   (Currently Amended) A method for performing a parking assist control according to claim 1, wherein the ~~step of calculating the~~ <u>calculation of the first</u> change of the vehicle direction ~~based on the traveling distance of the vehicle and the steering angle obtained by the steering angle sensor, and the step of calculating~~ <u>and</u>

the ~~calculation of the second~~ change of the vehicle direction ~~based on the yaw rate~~

~~obtained by the yaw rate sensor~~ are performed at the same time.

3.   (Currently Amended) A parking assist apparatus for performing a

parking assist control for automatically guiding a vehicle to a target parking position,

comprising:

a traveling distance calculating means for calculating a traveling distance of a

vehicle during an implementation of the parking assist control;

a first calculating means for calculating a <u>first</u> change of a vehicle direction

occurring within the traveling distance based on <u>output of a speed sensor and output</u>

<u>of</u> ~~the traveling distance and a steering angle obtained by~~ a steering angle sensor;

a second calculating means for calculating ~~the~~ <u>a second</u> change of the vehicle

direction occurring within the traveling distance based on a yaw rate obtained by a

raw rate sensor; and

a determining means for comparing calculated results obtained by the first

calculating means and the second calculated means and determining <u>that</u> ~~whether or~~

~~not~~ the parking assist control is <u>to be stopped</u> ~~required to be stopped based on a~~

~~result of a comparison between the calculated results~~ <u>when a difference between the</u>

<u>first change of the vehicle direction and the second change of the vehicle direction is</u>

<u>greater than a predetermined value.</u>

4.   (Original) A vehicle assist apparatus according to claim 3, wherein the

determining means compares the calculated results of the first calculating means

and the second calculated means which are calculated at the same time.

5.   (Currently Amended) A parking assist apparatus according to claim 3, wherein ~~when a difference between the change of the vehicle direction calculated by the first calculating means and the change of the vehicle direction calculated by the second calculating means is greater than a predetermined threshold value, the parking assist control is stopped~~ <u>the second calculating means calculates a deflection angle θ y based on the yaw rate sensor</u>.

6.   (Original) A parking assist apparatus according to claim 3, wherein the first calculating means calculates a deflection angle θ h based on the speed sensor and the steering angle sensor.

7.   (Original) A parking assist apparatus according to claim 7, wherein the second calculating means calculates a deflection angle θ y based on the yaw rate sensor.

8.   (Currently Amended) A parking assist apparatus according to claim 8, wherein
the determining means determines that one of the yaw rate sensor and the steering angle sensor is fault when a difference between the deflection angles θ h and θ y is greater than the predetermined ~~threshold~~ value.

9.   (Currently Amended) A parking assist apparatus for performing a parking assist control for guiding a vehicle to a target parking position, comprising:

~~a traveling distance calculating means for calculating a traveling distance of a vehicle during an implementation of the parking assist control;~~

a first calculating means for calculating a <u>first</u> change of a vehicle direction based on ~~the traveling distance~~ <u>output of a speed sensor</u> and <u>output of</u> ~~a steering angle obtained by~~ a steering angle sensor;

a second calculating means for calculating ~~the~~ <u>a second</u> change of the vehicle direction based on ~~a yaw rate~~ <u>output</u> obtained by a raw rate sensor; and

a determining means for comparing calculated results obtained by the first calculating means and the second calculated means and determining <u>that</u> ~~whether or not~~ the parking assist control is <u>to be</u> stopped based on a result of a comparison between the calculated results <u>when a difference between the first change of the vehicle direction and the second change of the vehicle direction is greater than a predetermined value</u>.

10.   (New) A parking assist apparatus according to claim 9, wherein the first calculating means calculates a deflection angle θ h based on the output of the speed sensor and the steering angle sensor.

11.   (New) A parking assist apparatus according to claim 10, wherein the second calculating means calculates a deflection angle θ y based on the output of the yaw rate sensor.

12. (New) A parking assist apparatus according to claim 11, wherein the determining means determines that one of the yaw rate sensor and the steering angle sensor is fault when a difference between the deflection angles θh and θy is greater than the predetermined value.

13. (New) A method for performing a parking assist control according to claim 1, further comprising determining that the parking assist control is required to be stopped when a difference between the first change of the vehicle direction and the second change of the vehicle direction is greater than a predetermined value.